FACT SHEET FOR NDPDES PERMIT NDG870000

GENERAL PERMIT FOR PESTICIDE DISCHARGE

DATE OF THIS FACT SHEET – JANUARY, 2011

INTRODUCTION

The Federal Clean Water Act (CWA, 1972, and later amendments in 1977, 1981, and 1987, etc.) established water quality goals for the navigable (surface) waters of the United States. One mechanism for achieving the goals of the CWA is the National Pollutant Discharge Elimination System (NPDES), which the US Environmental Protection Agency (EPA) has oversight authority. In 1975, the State of North Dakota was delegated primacy of the NPDES program by EPA. The North Dakota Department of Health (NDDoH) has been designated the state water pollution control agency for all purposes of the Federal Water Pollution Control Act, as amended [33 U.S.C. 1251, et seq.], and is hereby authorized to take all action necessary or appropriate to secure to this state the benefits of the act and similar federal acts. The department's authority and obligations for the wastewater discharge permit program is in the NDAC 33-16 (North Dakota Administrative Code), which was promulgated pursuant to NDCC chapter 61-28 (North Dakota Century Code). The department uses North Dakota Pollutant Discharge Elimination System (NDPDES) as its permitting title.

The following rules or regulations apply to NDPDES permits:

- Procedures the department follows for issuing NDPDES permits (NDAC chapter 33-16-01),
- Standards of Quality for Waters of the State (NDAC chapter 33-16-02.1).

These rules require any treatment facility operator to obtain an NDPDES permit before discharging wastewater to state waters. They also define the basis for limits on each discharge and for other requirements imposed by the permit.

According to the North Dakota Administrative Code (NDAC) section 33-16-01-08, the department must prepare a draft permit and accompanying fact sheet, and make it available for public review. The department must also publish an announcement (public notice) during a period of thirty days, informing the public where a draft permit may be obtained and where comments regarding the draft permit may be sent (NDAC chapter 33-16-01-07). For more information regarding preparing and submitting comments about the fact sheet and permit, please see **Appendix A – Public Involvement**. Following the public comment period, the department may make changes to the draft NDPDES permit. The department will summarize the responses to comments and changes to the permit in **Appendix D - Response to Comments.**

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BACKGROUND INFORMATION

General Information

Permit Number:	NDG870000
Permit Type:	General Permit, Initial Issuance
Discharge / Activity Type:	Pesticides applied to water bodies
Applicable Area:	State of North Dakota
Type of Treatment:	Best Professional Judgment (BPJ); and Best Management Practices (BMPs)
Discharge Location:	Waters of the State of North Dakota

General permits provide a streamline means to cover a large number of discharges that are subject to North Dakota Pollutant Discharge Elimination System (NDPDES) permit requirements. These dischargers are subject to the requirements of Section 402 of the Clean Water Act, as enforced by the NDPDES permitting program. In addition, the general permit process places less of an administrative burden on the issuing authority and regulated community than the individual permitting process. The general permits require baseline control practices aimed at minimizing the impact of pesticide discharges to waters of the state. Individual or alternative general permits may be developed to address specific water quality concerns or specific industry practices.

Regulatory Background

Prior to this draft general permit, the department had never proposed a NDPDES permit for the application of a pesticide to target a pest that is present in or over, including near, the waters of the state. Instead, EPA and the state have been regulating these types of applications through the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). EPA regulates the sale, distribution and use of pesticides under FIFRA to ensure that when used in conformance with FIFRA labeling directions, pesticides will not pose unreasonable risks to human health and the environment. The North Dakota Department of Agriculture (NDDA) is the state agency which regulates the sale, distribution and use of pesticides in North Dakota.

Over the past ten years, several courts addressed the question of whether the Clean Water Act (CWA) requires NPDES permits for pesticide applications. These cases resulted in some confusion about the applicability of the CWA to pesticides applied to state surface waters.

On November 27, 2006, EPA issued a final rule ("2006 NPDES Pesticides Rule") clarifying two specific circumstances in which an NPDES permit was not required to apply pesticides to or around water. They were: 1) the application of pesticides directly to water to control pests; and 2) the application of pesticides to control pests that are present over, including near, water where a portion of the pesticides will unavoidably be deposited to the water to target the pests, in both instances provided that the application is consistent with relevant FIFRA requirements.

On January 9, 2009, the Sixth Circuit vacated EPA's 2006 NPDES Pesticides Rule under a plain language reading of the CWA. *National Cotton Council of America v. EPA*, 553 F.3d 927 (6th Cir., 2009). The Court held that the CWA unambiguously includes "biological pesticides" and "chemical pesticides" with residuals within its definition of "pollutant." On June 8, 2009, the Sixth Circuit granted EPA a two-

year stay. At the end of the stay, on April 9, 2011, NPDES permits will be required for discharges to state surface waters of biological pesticides, and of chemical pesticides that leave a residue.

This general permit does not apply to the application of pesticides to areas which are exempt from department permitting. The CWA specifically excludes from the definition of point source, "agricultural stormwater discharges and return flow from irrigated agriculture." Nothing in this permit changes the effect of those statutory exemptions. Thus, for example, the application of a pesticide to an agricultural crop for the control of terrestrial pests that later runs off the field, either as irrigation return flow or stormwater runoff, is exempt from permit coverage even if that discharge to a water of the U.S. is known to contain pesticide residuals. Agricultural runoff classified as a non-point source discharge for which NPDES permit coverage is not required.

COVERAGE UNDER THIS PERMIT

Applicability of General Permit

This permit authorizes the discharge to surface waters of the state from the handling, use or application of pesticides provided the activity is in accordance with state laws and regulations, the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the pesticide labeling.

This permit is available to operators for the application of biological pesticides and chemical pesticides which leave a residue (hereinafter collectively "pesticides") that result in a discharge to waters of the state. Permit coverage includes the following pesticide use patterns:

Mosquito and Other Flying Insect Control - management of all public health/nuisance pests which develop or are present during a portion of their life cycle in standing or flowing water, when applying pesticides in or over standing or flowing water. Public health/nuisance pests in this use category include but are not limited to mosquitoes and black flies.

Weed and Algae Control- management of weeds and algae in water and at water's edge using aquatic pesticides, including but not limited to lakes, rivers, streams, irrigation canals, and drainage systems.

Animal Control - management of invasive or other nuisance species in water and at water's edge, including but not limited to lakes, rivers, and streams. Aquatic nuisance animals in this use category include but are not limited to fish, lampreys, and mollusks.

Forest Canopy Pest Control - aerial application of a pesticide over a forest canopy to control the population of a pest species (e.g., insect or pathogen) where a portion of the pesticide unavoidably will be applied over and deposited to water to target the pests effectively.

Request for Authorization – Notice of Intent (NOI)

Persons subject to this permit are not required to submit a Notice of Intent (NOI) and are automatically covered upon the effective date of this permit. Coverage under a general permit without submitting a notice of intent is allowed under 40 CFR 122.28(b)(2)(v) for discharges other than from publicly owned treatment works, combined sewer overflows, municipal separate storm sewer systems, primary industrial facilities and stormwater discharges associated with industrial activity. The department believes that

allowing coverage without a notice of intent would be appropriate since the pesticide applications are short duration and may require short response times for proper and effective pesticide applications. In addition pesticide use is regulated by other programs which establish prerequisites for pesticide applicators.

Commercial and public applicators must be certified as outlined in state law (NDCC 4-35, Pesticide Act). The statute also requires that private applicators be certified in order to use any restricted use pesticide. Another consideration for not requiring a notice of intent is that a notification for the application of aquatic pesticides is required under the state water quality standard regulations (NDAC 33-16-02.1-11). The notification requirement outlined in the state water quality standards has been included in the general permit. The notification requirement is as follows:

The department must be notified at least twenty (20) days prior to the application of any pesticide (herbicide, insecticide, biocide, piscicide, algaecide) to surface waters of the state for control of aquatic pests as provided in State water quality regulations (NDAC 33-16-02.1-11). The notification must include the following:

1. Chemical name and composition.
2. Map which identifies the area of application and aerial extent (e.g., acres or square feet).
3. A list of target species of aquatic biota the applicant desires to control.
4. The calculated concentration of the active ingredient in surface waters immediately after application.
5. Name, address, and telephone number of the certified applicator.

In the case of a declared pest emergency situation or other circumstances that precludes notification prior to the pesticide application; the notice outlined above shall be provided within 20 days after the pesticide application.

Discharges Not Covered

This general permit may not apply to the following:

Discharges of a pesticide to waters of the state identified in the 303d list or Integrated Report as impaired for that pesticide or its degrades, unless a Total Maximum Daily Load (TMDL) has been established for the receiving waters and the TMDL establishes a waste load allocation for the discharge consistent with this permit. The North Dakota Integrated Report can be viewed at: http://www.ndhealth.gov/WQ/SW/A_Publications.htm

Discharges which have limits assigned to them in another NDPDES permit or a Total Maximum Daily Load has been approved with a Waste Load Allocation which may be different from the limits contained in this permit.

Discharge of wastewater (such as treated sanitary wastewater, equipment wash water, or wash water from cleaning storage or mixing tanks) from facilities which handle or use pesticides.

The department may deny or revoke coverage under this permit and require submittal of an application for an individual NDPDES permit based on a person's compliance record, ambient water quality data, or any other information relative to the application of pesticides. This department reserves the right to issue such persons an individual NDPDES permit with more specific limitations and conditions.

This general permit does not substitute for obligations under the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), or National Historic Preservation Act (NHPA), it is your responsibility to ensure the project and resulting discharges comply with the respective requirements.

AUTHORIZATION TO DISCHARGE

All persons are authorized to apply pesticides under this general permit provided they fulfill any applicable pesticide applicator certification requirements.

NOTICE OF TERMINATION (NOT)

Permittees are not required to submit a notice of termination to end coverage under this permit. Coverage under this permit ends when the when the pesticide application resulting in discharge to waters of the state is completed.

The department may, by written notice, revoke the authorization to discharge in accordance with this general permit as it applies to any person and/or require such person to apply for and obtain an individual permit if:

The covered source or activity is a significant contributor to pollution or creates other environmental problems;

The permittee is not in compliance with the terms and conditions of this general permit;

Conditions or standards have changed so that the source or activity no longer qualifies for this general permit, or

The discharge limitations contained in this permit are not sufficient to meet the water quality standards applicable to a water body.

PROPOSED PERMIT LIMITS

The discharge from pesticide applications to surface waters is not regulated by national effluent limitations guidelines, which establish technology-based effluent limitations for various industries. In the absence of a federal standard, limitations may be determined using Best Professional Judgment (BPJ) [40 CFR 125.3(c)]. In addition the Department must consider and include limitations necessary to protect water quality standards applicable to the receiving waters.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS

Summary and Basis for Effluent Limitations

Effluent Parameters and Practices	**Basis**
No pesticide may be applied unless that pesticide is registered or otherwise authorized for use by the North Dakota Department of Agriculture (NDDA).	NDCC 4-35-15, NDCC 19-18 BPJ, 40 CFR 125.3(c)
No person shall apply a pesticide unless in accordance with state pesticide laws, NDDA regulations and the pesticide labeling.	NDCC 4-35-15, NDAC 60-03-01-06, BPJ, 40 CFR 125.3(c)

Effluent Parameters and Practices	**Basis**
No person shall apply a restricted use pesticide unless that person is certified as outlined in NDDA regulations or that person is under the direct supervision of someone who is a certified pesticide applicator.	NDCC 4-35-14, NDAC 60-03-01-05.2, BPJ, 40 CFR 125.3(c)
No commercial or public applicator shall apply pesticide unless they are certified as outlined in NDDA regulations or that person is under the direct supervision of someone who is a certified pesticide applicator.	NDCC 4-35-09, NDAC 60-03-01-05.1, BPJ, 40 CFR 125.3(c)
Use only the amount of pesticide and frequency of pesticide application necessary to control the target pest using equipment and application procedures appropriate for the task.	NDCC 4-35-15, NDAC 60-03-01-06, BPJ, 40 CFR 125.3(c)
Perform regular maintenance activities to minimize potential for leaks, spills, and unintended release of pesticides to waters of the state.	NDAC 60-03-01-06, BPJ, 40 CFR 125.3(c)
Maintain application equipment in proper operating condition by calibrating, cleaning, and repairing such equipment on a regular basis to ensure effective pesticide application and pest control. Properly calibrate equipment (i.e. nozzle choice, droplet size, etc.) to deliver the appropriate application rate for the task.	NDAC 60-03-01-06, BPJ, 40 CFR 125.3(c)

The handling, use or application of pesticides is regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). In addition the North Dakota has enacted laws and promulgated rules to implement portions of FIFRA to regulate pesticide sale, distribution, storage and use within the state. State laws and rules pertaining to pesticides referred to in this permit include: NDCC 4-35, Pesticide Act; NDAC 60-03, Pesticide Rules; and NDCC 19-18, Pesticide Registration.

The North Dakota, the Pesticide Control Board administers the Pesticide Act and may adopt rules to implement the act. The Pesticide Control Board consists of the Agriculture Commissioner, who is chairman of the board; the director of the North Dakota State University Extension Service; and the director of the Agricultural Experiment Station at North Dakota State University. The North Dakota State University Extension Service is responsible for the pesticide applicator certification program. The Agriculture Commissioner is responsible for the enforcement of the Pesticide Act and related rules. The lead agency in the state for pesticide regulations is the North Dakota Department of Agriculture (NDDA), as the office and staff for the Agriculture Commissioner.

Owners/operators must comply with all applicable statutes, regulations and other requirements including, but not limited to requirements contained in the labeling of pesticide products approved under FIFRA ("FIFRA labeling"). Although the FIFRA label and labeling requirements are not effluent limitations, it is illegal to use a registered pesticide inconsistent with its labeling. The department considers many provisions of FIFRA labeling -- such as those relating to application sites, rates, frequency, and methods, as well as provisions concerning proper storage and disposal of pesticide wastes and containers -- to be requirements that protect water quality. The application rates and other conditions for pesticide use serve to limit the concentration of pesticide discharged to water. If a pesticide is applied at a rate higher than specified on the label or in a manner inconsistent with any relevant water-quality related FIFRA

labeling requirements, the department will consider the discharge to be noncompliant with the effluent limitation under the NDPDES permit.

Pesticide product registration provides a level of protection for water quality, human health and the environment. In general, FIFRA authorizes EPA to register each pesticide product intended for distribution or sale in the U.S. To register a pesticide, the Agency must determine that its use in accordance with the label will not cause "unreasonable adverse effects on the environment" (see, e.g., FIFRA § 3(c)(5)). In making decisions on whether to register a pesticide, EPA considers the use directions on proposed product labeling and evaluates data on product chemistry, human health, ecological effects, and environmental fate to assess the potential risks associated with the use(s) proposed by the applicants for registration and expressed on the labeling. Among other things, the Agency evaluates the risks to human health and the environment (including water quality) posed by the use of the pesticide.

EPA also implements risk mitigation measures by placing use restrictions and warnings on labeling to ensure the use of the pesticide (under actual use circumstances and commonly accepted practice) will not cause any "unreasonable adverse effects on the environment." Mitigation measures may include limits on the amount and frequency that a pesticide may be applied, or the application methods may be restricted to limit off-site transport. Mitigation may also limit the geographical areas to which a pesticide can be applied or may include mandatory buffer distances from sensitive habitats. Mitigation measures are implemented through product labeling instructions, with which pesticide users are required to comply.

To minimize the total amount of pesticide discharged, operators must use the amount of pesticide and frequency of pesticide application necessary to control the target pest using equipment and application procedures appropriate for the task. Using the optimal effective rate ensures maximum efficiency in pest control with the minimum quantity of pesticide. It also reduces the amount of pesticide available that is not performing a specific pest-control function and can result in cost and time savings to the user. To minimize discharges of pesticide, owners/operators should base the rate and frequency of application on what is known to be effective against the target pest.

The appropriate pesticide application rate and frequency for managing the target pest is also important in reducing the potential for pesticide resistance. Some pests can develop resistance to pesticides unless resistance management techniques are adopted by pesticide users. Resistance can result in the loss of effectiveness of a pesticide with relatively favorable environmental and human health risks, and increase reliance on riskier pesticides. When resistance occurs, users may increase rates and frequency of application in an attempt to maintain pesticide effectiveness. This can lead to the loss of efficacy and increased exposure to the pesticide. Pesticide applicators should be aware of the potential for pest resistance to develop by considering the pest, the pesticide and its mode of action, the number of applications and intervals, and application rates.

Pesticide applicator certification programs provide instruction to applicators on proper pesticide handling and use. The pesticide certification program in North Dakota is administered by the North Dakota State University Extension Service. The program establishes standards, including testing, for persons to become certified to use or handle pesticides. Persons who successfully complete the pesticide applicator training and testing receive certification and are deemed competent to use pesticides. Pesticide certification is required persons who sell, purchase or use restricted use pesticides. In addition North Dakota requires commercial and public applicators to be certified to use general use pesticides.

Proper maintenance of pesticide application equipment reduces the potential for unintended discharges of pesticides to waters of the state. To minimize discharges of pesticide, operators must ensure that the

rate of application is calibrated (i.e. nozzle choice, droplet size, etc.) to deliver the appropriate quantity of pesticide needed to achieve greatest efficacy against the target pest. Improperly calibrated pesticide equipment may cause either too little or too much pesticide to be applied. This lack of precision can result in excess pesticide being available or result in ineffective pest control. When done properly, equipment calibration can assure uniform application to the desired target and result in higher efficiency in terms of pest control and cost.

Non-numeric limitations or Best Management Practices (BMPs) may be used to control or abate the discharge of pollutants when numeric effluent limitations are infeasible as provided in 40 CFR 122.44(k)(3). Numeric limitations would not be feasible for the activity covered by this permit. The discharges from the application of pesticides can be highly intermittent with those discharges not practically separable from the pesticide application itself. Also the discharges from the application of pesticides are often short duration, highly variable, and may occur from many different locations. This variability makes setting numeric effluent limitations for pesticide applications extremely difficult. In this case, the use of narrative conditions (based on existing requirements), provides a reasonable approach to control pesticides discharges.

SELF-MONITORING REQUIREMENTS

It is not feasible to routinely sample discharges from pesticide applications. As such the permit does not include sample based monitoring requirements. However, the permit includes narrative monitoring requirements.

Operators must monitor all pesticide application activities to ensure proper equipment operation and to obtain the information identified under the recordkeeping requirements. The pesticide application records provide a measure of pesticide potentially discharged to waters.

Operators must visually monitor the pesticide application area, where practical, for possible and observable adverse impacts caused by the pesticide application. If an adverse impact is observed a report must be made as outlined in the incident reporting requirements of the permit.

Recordkeeping

Pesticide applicators are required to keep is records of pesticide applications under state pesticide rules (NDAC 60-03-01-07). The permit identifies records that must be kept by commercial and public applicators under the pesticide rules. The department believes the majority of pesticide applications subject to this permit will be made by commercial and public applicators. The records must include the following information:

1. Name and address of the person for whom the pesticide was applied.
2. Legal description of the land or other description of where the pesticide was applied.
3. Pest or pests controlled.
4. Starting and completion time the pesticide was applied (month, day, year, and hour).
5. Person who supplied the pesticide that was applied.
6. Specific trade name of the pesticide applied and EPA registration number.
7. Direction and estimated velocity of the wind and the estimated temperature of the outdoor air at the time the pesticide was applied. This requirement shall not apply if a bait is used to attract the pest or pests or if the application is made indoors.
8. Amount of pesticide used, including:
    - Pounds [kilograms] or gallons [liters] per acre [.40 hectare] of formulated product.

- Percentage or pounds [kilograms] of active ingredient.
- Pounds [kilograms] or gallons [liters] of tank mix applied per acre [.40 hectare].

9. Specific crops, commodities, and total acreage [hectarage] or other common identifying unit of measure to which the pesticide was applied.
10. Description of equipment used in application.
11. Certification number of applicator, if any, and signature.
12. Right-of-way applicators must record weather conditions and geographic location in two-hour increments.

The permit also indicates that a copy of these records shall be provided to any employee of the department upon request at a reasonable time during normal working hours. The department intends to coordinate any request to review records with the NDDA.

The permit does not in any way change the recordkeeping requirements for other pesticide applicators and pesticide dealers. To reinforce that fact the permit includes a statement that the recordkeeping requirements for pesticide dealers, and private applicators using restricted use pesticides are also outlined in NDDA rules (NDAC 60-03-01-07).

SURFACE WATER QUALITY-BASED EFFLUENT LIMITS

In addition to restrictions on discharges in the event that a water body becomes impaired or a TMDL is established for a pesticide, the permit contains the following in regard to water quality-based limitations:

> Your discharge must be controlled as necessary to meet applicable numeric and narrative state water quality standards. If at any time you become aware, or the department, that your discharge causes or contributes to an excursion of applicable water quality standards, you must take corrective action.
>
> The State Water Quality Standards (NDAC 33-16-02.1) describe the numerical and general criteria that apply to all water bodies of the State. Criteria are elements of the water quality which set limitations on the permissible amounts of a substance or other characteristics of state waters. The General Criteria, as described in the Water Quality Standards, limit discharges to maintain aesthetics, color, turbidity, the biologic and aquatic community integrity, and many other elements in the receiving water body. Any noncompliance with the General or Numerical Criteria is not authorized under this permit.
>
> The Health Department has made the determination that the application of pesticides in accordance with controls required by this permit, NDDA regulations and the pesticide labeling will comply with the Water Quality Standards. However, any application of a pesticide which results in a long-term or permanent impact on a designated water use may be subject to enforcement action and/or be required to obtain an individual permit action under the NDPDES program.

Section 401, Water Quality Certification applies to federal licenses and permits including Clean Water Act § 402 NPDES permits in states where EPA administers the permit program. The North Dakota Department of Health administers the Clean Water Act § 402 Permit Program. The state assumes authority for issuing § 401, Water Quality Certification on § 402, NDPDES Permits. The central feature of Clean Water Act § 401 is the state's ability to grant, grant with conditions, deny, or waive certification. The state cannot issue § 401, Water Quality Certification if the permit is not in compliance with EPA approved Water Quality Standards.

Therefore, under section 401 of the CWA, the ND Department of Health hereby certifies this NDPDES General Permit will not violate any provisions of the Standards of Quality for Waters of the State if all conditions specified in the permit are adhered to.

The department conducts ambient water quality monitoring at 34 river and stream sites in ND. Sites are sampled every six weeks beginning in April at ice out. Open water sampling typically concludes in November. One set of samples are also collected under ice in late January/February. Samples are analyzed for 61 pesticides. Results will be compared to criteria established in the ND Water Quality Standards for acute and chronic exposure limits. In the event an exceedence is detected, application records required in the permit will be reviewed and appropriate action will be initiated.

Currently there are no waters listed as impaired due to pesticides or pesticide residuals in the state as provided in the *North Dakota 2010 Integrated Section 305(b) Water Quality Assessment Report and Section 303(d) List of Waters Needing Total Maximum Daily Loads*. Since available monitoring data indicates that water quality standards are not being routinely exceeded for pesticide residuals, the department contends that this is further evidence that owner/operators should be able to meet water quality standards when complying with FIFRA and the PGP.

WATER QUALITY STANDARDS

The North Dakota State Water Quality Standards (NDAC Chapter 33-16-02.1) are designed to protect existing water quality and preserve the beneficial uses of North Dakota's surface waters. Wastewater discharge permits must include conditions that ensure the discharge will meet the surface water quality standards. Water quality-based effluent limits may be based on an individual waste load allocation or on a waste load allocation developed during a basin wide total maximum daily load (TMDL) study. TMDLs result from a scientific study of the water body and are developed in order to reduce pollution from all sources.

Numerical Criteria for the Protection of Aquatic Life and Recreation

Numerical water quality criteria are listed in the water quality standards for surface waters (NDAC Chapter 33-16-02.1). They specify the maximum levels of pollutants allowed in receiving water to protect aquatic life and recreation in and on the water. The department uses numerical criteria along with chemical and physical data for the wastewater and receiving water to derive the effluent limits in the discharge permit. When surface water quality-based limits are more stringent or potentially more stringent than technology-based limits, the discharge must meet the water quality-based limits.

Numerical Criteria for the Protection of Human Health

The U.S. EPA has published numeric water quality criteria for the protection of human health that are applicable to dischargers. These criteria are designed to protect humans from exposure to pollutants linked to cancer and other diseases, based on consuming fish and shellfish and drinking contaminated surface waters. The Water Quality Standards also include radionuclide criteria to protect humans from the effects of radioactive substances.

Narrative Criteria

Narrative water quality criteria (NDAC Chapter 33-16-02.1-08) limit concentrations of pollutants from exceeding applicable standards of the receiving waters. The department adopted a narrative biological

goal solely to provide an additional assessment method that can be used to identify impaired surface waters.

Antidegradation

The purpose of North Dakota's Antidegradation Policy (NDAC Chapter 33-16-02(Appendix IV)) is to:

- Provide all waters of the state one of three levels of antidegradation protection.
- Determine whether authorizing the proposed regulated activity is consistent with antidegradation requirements.

The department's fact sheet demonstrates that the existing and designated uses of the receiving water will be protected under the conditions of the proposed permit. The department considers pesticide application to be a temporary change and therefore recognizes that discharges of pesticides to water bodies may be authorized by this permit. *Add-- There are no waters in the state currently designated as Outstanding State Resource Waters.*

Mixing Zones

The department's WQS contain a Mixing Zone and Dilution Policy and Implementation Procedure, NDAC Chapter 33-16-02.1 (Appendix III). This policy addresses how mixing and dilution of point source discharges with receiving waters will be addressed in developing chemical-specific and whole effluent toxicity discharge limitations for point source discharges. Depending upon site-specific mixing patterns and environmental concerns, some pollutants/criteria may be allowed a mixing zone or dilution while others may not. In all cases, mixing zone and dilution allowances shall be limited, as necessary, to protect the integrity of the receiving water's ecosystem and designated uses.

HUMAN HEALTH

North Dakota's water quality standards include numeric human health-based criteria that the department must consider when writing NDPDES permits. These criteria were established in 1992 by the U.S. EPA in it National Toxics Rule (40 CFR 131.36). The National Toxics Rule allows states to use mixing zones to evaluate whether discharges comply with human health criteria. The department determined that temporary discharge activities listed above are regulated to protect human health. The department will re-evaluate temporary discharge activities for impacts to human health at the next permit reissuance.

MONITORING REQUIREMENTS

The department requires monitoring, recording, and reporting (NDAC Chapter 33-16-01-(21-23) and 40 CFR 122.41) to verify that the treatment process is functioning correctly and that the discharge complies with the permit's limits. This permit does not include sample-based monitoring requirements. However, should the department require monitoring to determine the effect of a particular discharge; the monitoring, recording and reporting must conform to the requirements outlined in the permit.

Test Procedures

The collection and transportation of all samples shall conform to EPA preservation techniques and holding times. All laboratory tests shall be performed by a North Dakota certified laboratory in conformance with test procedures pursuant to 40 CFR 136, unless other test procedures have been

specified or approved by EPA as an alternate test procedure under 40 CFR 136.5. The method of determining the total amount of water discharged shall provide results within 10 percent of the actual amount.

OTHER PERMIT CONDITIONS

INCIDENT REPORTING

The permit includes standard conditions for noncompliance reporting. The conditions have been adjusted in this permit for reporting the occurrence of an adverse incident as a result of pesticide handing or application. The state has existing rules for reporting pesticide accidents (NDAC 60-03-01-09). It appears that the reporting requirement under the state rules would include the conditions described in the definition for adverse incident. The department has incorporated the information required for pesticide accident reports made to the NDDA into reporting requested under this permit. The incident reporting is as follows

Twenty-Four (24) Hour Incident Notification. Any person who is involved in or causes a pesticide accident that results in adverse effects on animals or the environment shall file a report to the commissioner (NDDA). The report must be made within twenty-four hours after the accident. The report may be filed by letter, telephone, or electronic mail at the North Dakota Department of Agriculture, 600 E Boulevard Ave, Bismarck ND 58505-0020; 701.328.2231; ndda@nd.gov. The report must contain:

1. The name of the pesticide.
2. The amount of pesticide or tank mix, or both.
3. The location of the pesticide accident.
4. The time of accident (month, day, year, and hour).
5. The direction and estimated velocity of the wind and estimated temperature at the time of the accident, if outdoors.
6. Actions taken to remedy the adverse effects on animals and the environment.

For adverse incidents as defined in this permit (Appendix B - Glossary) include the following:
1. Contact information including the operator name, address and phone number; and
2. A description of the adverse incident including affected area size and any impacted water bodies.

Adverse incidents and spills which may seriously endanger health or the environment must be reported as soon as possible, but no later than twenty-four (24) hours from the time the permittee first became aware of the circumstances. The report shall be made to the State of North Dakota, Division of Homeland Security at 1.800.472.2121.

Five (5) Day Adverse Incident Written Report**.** Within five (5) days of becoming aware of an adverse incident, the permittee may be required provide a written report of the adverse incident to the Department of Health. The written report must include the following information:

1. The information listed for the 24-hour notice listed above;
2. Contact information including name, address and phone number;
3. A description of the adverse incident and its cause;
4. The period of the adverse incident, including dates and times;
5. The estimated time the incident is expected to continue if it has not been corrected;
6. The size and scope of the affected area (e.g. aquatic area or total stream distance affected);

7. A description of the environmental impact of the adverse incident including species affected, estimated number and size of affected organisms;
8. Steps taken or planned to prevent recurrence of the incident.

The written reports shall be submitted to the Department of Health, Division of Water Quality, 918 E. Divide Ave, Bismarck ND 58501. The Department may waive the written report on a case by case basis if the oral report has been received within 24 hours by the NDDA or the NDDH at 701.328.5210.

Since this permit does not require the submittal of monitoring result reports at least annually 40 CFR 122.44 requires that the permittee report all instances of noncompliance not reported under 40 CFR 122.41(l)(1),(4),(5), and (6) at least annually. As such the permit includes the following for reporting other noncompliance not covered by the reporting outlined above or elsewhere in the permit.

Reporting for Noncompliance. Report all instances of noncompliance with the permit effluent limitations which are not subject to the 24-hour reporting described above within 20 days of becoming aware of the noncompliance. The report may be made by phone to the Department of Health at (701) 328-5210 or sent to the department at the address in Part I.D. The report must include:

1. Operator name, address and phone number;
2. A description of the noncompliance and its cause;
3. The period of noncompliance, including dates;
4. The estimated time the noncompliance is expected to continue if it has not been corrected
5. Steps taken or planned to prevent recurrence.

PEST MANAGEMENT MEASURES

The department believes that many operators are already using various pest management measures to manage pests and optimize pesticide applications including Integrated Pest Management approaches. The department expects operators to continue to consider information on the target pest and available control methods in selecting and implementing their pest management strategies.

The pest management measures should include, but are not limited to, the following steps: identify the pest problem; evaluate and properly implement pest management strategies; and conduct pest surveillance. The management measures must be revised, as needed, to respond to pest control needs and the following situations: noncompliance with the conditions of this permit, pesticide accidents and adverse incidents. A description of the management measures and any supporting documents must be made available to the department upon request. Appendix C provides additional information on pest management measures for the pesticide use patterns covered by this permit.

PERMIT ISSUANCE PROCEDURES

PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for cause. This includes the establishment of limitations or prohibitions based on changes to Water Quality Standards, the development and approval of waste load allocation plans, the development or revision to water quality management plans, changes in sewage sludge practices, or the establishment of prohibitions or more stringent limitations for toxic or conventional pollutants and/or sewage sludges. The filing of a request by

the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

PROPOSED PERMIT ISSUANCE

This proposed permit meets all statutory requirements for the department to authorize a wastewater discharge. The permit includes limits and conditions to protect human health and aquatic life, and the beneficial uses of waters of the State of North Dakota. The department proposes to issue this permit for a term of five (5) years.

APPENDIX A – PUBLIC INVOVLEMENT INFORMATION

The department proposes to issue a general permit for pesticide discharges within the State of North Dakota. This permit includes limitations and other conditions based on state and federal requirements for the handling and application of pesticides. This fact sheet describes the type of activities covered under this general permit and the department's reasons for requiring permit conditions.

The department will place a Public Notice of Draft on, or about, **February 1, 2011** in the **Regional Papers** to inform the public and to invite comment on the proposed draft North Dakota Pollutant Discharge Elimination System permit and fact sheet.

The Notice –

- Tells where copies of the draft Permit and Fact Sheet are available for public evaluation.
- Offers to provide assistance to accommodate special needs.
- Urges people to submit their comments before the end of the comment period.
- Informs the public that if there is significant interest, a public hearing will be scheduled.
- Advertises a public meeting to be held on **February 10, 2011 at 1:00 p.m.** at the Environmental Training Center, 2639 East Main Ave, Bismarck ND. Department of Health representatives will be available to provide information and to answer questions on the proposed permit.

You may obtain further information from the department by telephone, 701.328.5210 or by writing to the address listed below.

North Dakota Department of Health
Division of Water Quality
918 East Divide Avenue, 4th Floor
Bismarck, ND 58501

The primary author of this permit and fact sheet is Department of Health.

North Dakota Department of Health Public Notice
Issue of an NDPDES Permit

Public Notice Date: 2/1/2011

Purpose of Public Notice

The Department intends to issue the following North Dakota Pollutant Discharge Elimination System (NDPDES) Discharge Permit under the authority of Section 61-28-04 of the North Dakota Century Code.

Permit Information

Public Notice Number: ND-2011-003
General Permit Number: NDG870000
Activity: Pesticide Applications to Surface Waters
Coverage Area: Statewide
Proposed Permit Expiration Date: 3/31/2016

Description

The Department intends to issue NDPDES General Permit, NDG870000, to authorize the discharge from pesticide applications made to waters of the state. On January 9, 2009, the Sixth Circuit Court of Appeals held that the Clean Water Act unambiguously includes "biological pesticides" and "chemical pesticides" with residuals within its definition of "pollutant". On June 8, 2009, the Sixth Circuit granted the Environmental Protection Agency (EPA) a two-year stay. At the end of the stay, on April 9 2011, wastewater discharge permits will be required for discharges of pesticides to state surface waters.

To comply with the permit requirements, pesticide applications must be made in accordance with state pesticide regulations, FIFRA, and the instructions on the pesticide label. The permit limitations and conditions are based on existing regulations, best professional judgment and water quality considerations. Authorization to discharge under this permit begins on the permit effective date. A notice of intent is not required for authorization under this permit. As provided for in NDPDES rules, a notice of intent is not being required based on several considerations including the nature of the discharges and existing regulations applicable to the activity covered by this permit. The permit does include a requirement to notify the Department prior to pesticide applications to waters of the state for control of aquatic pests as provided in state water quality regulations.

Tentative Determinations

Proposed effluent limitations and other permit conditions have been made by the Department. They assure that State Water Quality Standards and applicable provisions of the FWPCAA will be protected.

Informational Meeting

A public meeting will be held on **February 10, 2011 at 1:00 p.m.** at the Environmental Training Center, 2639 East Main Ave, Bismarck ND. Department of Health representatives will be available to provide information and to answer questions on the proposed permit.

Information Requests and Public Comments

Copies of the application, draft permit, and related documents are available for review. Comments or requests should be directed to the ND Dept of Health, Div of Water Quality, 918 East Divide Ave, Bismarck ND 58501-1947 or by calling 701.328.5210.

All comments received by March 04, 2011 will be considered prior to finalizing the permit. If there is significant interest, a public hearing will be scheduled. Otherwise, the Department will issue the final permit within sixty (60) days of this notice. If you require special facilities or assistance relating to a disability, call TDD at 1.800.366.6868.

APPENDIX B – GLOSSARY

DEFINITIONS

"Action Threshold" means a point at which pest populations or environmental conditions indicate that pest control action must be taken. Action thresholds help determine both the need for control actions and the proper timing of such actions.

"Active Ingredient" means:

- In the case of a pesticide other than a plant growth regulator, defoliant or desiccant, an ingredient which will prevent, destroy, repel, or mitigate pests.
- In the case of a plant growth regulator, an ingredient which, through physiological action, will accelerate or retard the rate of growth or rate of maturation or otherwise alter the behavior of ornamental or crop plants or the produce thereof.
- In the case of a defoliant, an ingredient which will cause the leaves or foliage to drop from a plant.
- In the case of a desiccant, an ingredient which will artificially accelerate the drying of plant tissue. [NDCC 19-18-02]

"Adverse incident" means and undesirable unexpected event caused by the use of a pesticide that adversely affects man or the environment, or is reasonably likely to suffer a delayed or chronic adverse effect in the future. The phrase "adverse effects" includes effects on non-target plants, fish, or wildlife that are unusual or unexpected as a result of exposure to a pesticide residue, and may include:

- Distressed or dead fish;
- Stunted, wilting, or desiccation of non-target submerged or emergent aquatic plants; or
- Other dead or visibly distressed non-target aquatic organisms (amphibians, turtles, or invertebrates, etc.)

The phrase "adverse effects" also includes any adverse effects to domesticated animals or humans related to exposure to a pesticide residue.

"Applicator" means any person who applies pesticide to land or, for the purpose of this permit, surface waters of the state.

- *Certified applicator* means any individual who is certified under NDCC 4-35 to purchase or use a restricted use pesticide.
- *Commercial applicator* means a person who by contract or for hire engages in the business of applying pesticides for compensation. [NDCC 4-35-05]
- *Private applicator* means an individual who is required to be a certified applicator to buy or use a restricted use pesticide on property owned or rented by the applicator or the applicator's employer or, if applied without compensation other than trading of personal services between producers of agricultural commodities, on the property of another person. [NDCC 4-35-05]
- *Public applicator* means an applicator who applies pesticides, other than ready to use pesticides, as an employee of:
  a. A governmental agency, municipal corporation, or public utility; or
  b. A hospital, privately owned golf course, nursery, or greenhouse. [NDCC 4-35-05]

"Best Management Practices (BMPs)" means schedules of activities, practices (and prohibitions of practices), structures, vegetation, maintenance procedures, and other management practices to prevent or reduce the discharge of pollutants to waters of the U.S. BMPs also include treatment requirements, operating procedures, and practices to control spillage or leaks, or drainage from raw material storage. [40 CFR 122.2]

"Biological pesticides" (also called biopesticides) - include microbial pesticides, biochemical pesticides and plant-incorporated protectants (PIP).

- *Microbial pesticide* means a microbial agent intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or dessicant, that:
  - Is a eucaryotic microorganism including, but not limited to, protozoa, algae, and fungi;
  - Is a procaryotic microorganism, including, but not limited to, Eubacteria and Archaebacteria; or
  - Is a parasitically replicating microscopic element, including but not limited to, viruses. [40 CFR 158.2100(a)]
- *Biochemical pesticide* means a pesticide that
  - Is a naturally-occurring substance or structurally-similar and functionally identical to a naturally-occurring substance;
  - has a history of exposure to humans and the environment demonstrating minimal toxicity, or in the case of a synthetically-derived biochemical pesticides, is equivalent to a naturally-occurring substance that has such a history; and
  - Has a non-toxic mode of action to the target pest(s). [40 CFR 158.2000(a)]
- *Plant-incorporated protectant* means a pesticidal substance that is intended to be produced and used in a living plant, or in the produce thereof, and the genetic material necessary for production of such a pesticidal substance. It also includes any inert ingredient contained in the plant, or produce thereof. [40 CFR 174.3]

"Chemical pesticides" means all pesticides not otherwise classified as biological pesticides.

"CFR or Code of Federal Regulations" means the federal administrative rules adopted by the United States in effect as of July 1, 2009.

"Control Measure" means any BMP or other method used to meet the effluent limitations to minimize the discharge of pollutants to waters of the state.

"Declared Emergency Situation" means any event defined by public declaration by a federal agency, state, or local government of a pest problem that is determined to require control through application of a pesticide, beginning less than ten days after identification of the need for pest control. This public declaration may be based on:

- Significant risk to human health;
- Significant economic loss; or
- Significant risk to endangered species, threatened species, beneficial organisms, or the environment. [40 CFR 166]

"Discharge" – when used without qualification, means the "discharge of a pollutant."

"Discharge of a pollutant" and "discharge of pollutants" each means any addition of any pollutant to the waters of the state from any source, including the disposal of pollutants into wells. [NDAC 33-16-01]

"Facility or Activity" means any NDPDES "point source" (including land or appurtenances thereto) that is subject to regulation under the NDPDES program.

"Fungicide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any fungi. [NDCC 19-18-02]

"Handling" means the mixing, loading, application, repackaging, storage, transportation, distribution, sale, purchase, or disposal of pesticides. [NDAC 60-03-02]

"Hazardous condition" means any situation involving the actual, imminent or probable spillage, leakage, or release of a hazardous substance onto the land, into a water of the state or into the atmosphere which, because of the quantity, strength and toxicity of the hazardous substance, its mobility in the environment and its persistence, creates an immediate or potential danger to the public health or safety or to the environment.

"Hazardous substance" means any substance or mixture of substances that presents a danger to the public health or safety and includes, but is not limited to, a substance that is toxic, corrosive, or flammable, or that is an irritant or that, in confinement, generates pressure through decomposition, heat, or other means. The following are examples of substances which, in sufficient quantity, may be hazardous: acids; alkalis; explosives; fertilizers; heavy metals such as chromium, arsenic, mercury, lead and cadmium; industrial chemicals; paint thinners; paints; pesticides; petroleum products; poisons; radioactive materials; sludges; and organic solvents.

"Herbicide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any weed. [NDCC 19-18-02]

"Impaired Water" means a water is impaired for purposes of this permit if it has been identified by the department as not meeting applicable state water quality standards. Impaired waters include both waters with approved or established TMDLs, and those for which a TMDL has not yet been approved or established.

"Inert Ingredient" means an ingredient that is not an active ingredient. [NDCC 19-18-02]

"Insect" means any of the numerous small invertebrate animals generally having the body more or less obviously segmented, for the most part belonging to the class Insecta, comprising six-legged, usually winged forms, as for example, beetles, bugs, bees, flies and to other allied classes of arthropods whose members are wingless and usually have more than six legs, as for example, spiders, mites, ticks, centipedes and wood lice. [NDCC 19-18-02]

"Insecticide" means any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any insects that may be present in any environment whatsoever. [NDCC 19-18-02]

"Integrated Pest Management" means a holistic approach to managing pests by combining biological, cultural, physical, and chemical tools in a way that balances economic, health, and environmental risks and benefits.

"Label" means the written, printed, or graphic matter on, or attached to, the pesticide or device, or any of its containers or wrappers. [NDCC 19-18-02]

"Labeling" means all labels and other written, printed, or graphic matter:
a. Upon the pesticide or device or any of its containers or wrappers;
b. Accompanying the pesticide or device at any time; or
c. To which reference is made on the label or in literature accompanying the pesticide or device, except when accurate, nonmisleading reference is made to current official publications of a state or federal agency, state agricultural experiment station, or state agricultural college. [NDCC 19-18-02]

"Minimize" means to reduce and/or eliminate pesticide discharges to waters of the state through the use of control measures and to the extent technologically available and economically practicable and achievable.

"Operator" means for the purposes of this permit, an operator is defined as any entity involved in the application of a pesticide that results in a discharge to a water of the U.S. that meets either of the following two criteria:
- The entity has operational control over the financing for, or the decision to perform pesticide applications that result in discharges, including the ability to modify those decisions; and/or
- The entity has day-to-day operational control of activities which are necessary to ensure compliance with the permit (e.g., they are authorized to direct workers to carry out activities required by the permit).

"Person" means any individual, partnership, association, corporation, limited liability company, or organized group of persons whether incorporated or not. [NDCC 19-18-02]

"Person" includes any corporation, limited liability company, individual, partnership, association, or other public or private entity, including any state or federal agency or entity responsible for managing a state or federal facility, and includes any officer or governing or managing body of any such entity. [NDCC 61-28-02]

"Pest" means any insect, rodent, nematode, fungus, or weed; or any other form of terrestrial or aquatic plant or animal life, viruses, bacteria, or other micro-organism, except viruses, bacteria, or other micro-organisms on or in living humans or other living animals. [NDCC 4-35-05]

"Pesticide" means:
a. Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest; and
b. Any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant. [NDCC 4-35-05]
   - *Defoliant"* means any substance or mixture of substances intended to cause the leaves or foliage to drop from a plant, with or without causing abscission. [NDCC 4-35-05]
   - *Desiccant*" means any substance or mixture of substances intended to artificially accelerate the drying of plant tissue. [NDCC 4-35-05]
   - *Plant growth regulator"* means any substance or mixture of substances intended, through physiological action, to accelerate or retard the rate of growth or rate of maturation, or to otherwise alter the behavior of plants or the produce thereof, but does

not include substances to the extent that they are intended as plant nutrients, trace elements, nutritional chemicals, plant inoculants, and soil amendments. [NDCC 4-35-05]

"Pesticide Residue" includes that portion of a pesticide application that is discharged from a point source to waters of the state and no longer provides pesticidal benefits. It also includes any degradates of the pesticide.

"Point source" means any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are or may be discharged. This term does not include return flows from irrigated agriculture or agricultural storm water runoff. [40 CFR 122.2]

"Pollutant" means "wastes" as defined in NDCC 61-28-02, including dredged spoil, solid waste, incinerator residue, garbage, sewage, sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into water. [NDAC 33-16-01-01]

"Seriously endanger health or the environment" means "Hazardous condition"

"Target Pest" or "Target Species" means the organism toward which control measures are being directed.

"Total Maximum Daily Loads (TMDLs)" means a calculation of the maximum amount of a pollutant that a water body can receive and still meet water quality standards, and an allocation of that amount to the pollutant's sources. A TMDL includes wasteload allocations (WLAs) for point source discharges; load allocations (LAs) for nonpoint sources and/or natural background, and must include a margin of safety (MOS) and account for seasonal variations.

"Under the direct supervision" means the act or process whereby the application of a pesticide is made by a competent person acting under the instructions and control of a certified applicator who is responsible for the actions of that person and who is available if and when needed, even though the certified applicator is not physically present at the time and place the pesticide is applied. The certified applicator must be able to arrive at the location of a supervised applicator within thirty minutes. [NDAC 60-03-01-02]

"Unreasonable adverse effects on the environment" means any unreasonable risk to humans or the environment, taking into account the economic, social, and environmental costs and benefits of the use of any pesticide. [NDCC 4-35-05]

"Use of a pesticide in a manner inconsistent with its labeling" means to use any pesticide in a manner that is not permitted by the label, except that the term does not apply to any of the following:

a) Applying a pesticide at any dosage, concentration, or frequency that is less than that specified on the label, unless the label specifically prohibits deviation from the specified dosage, concentration, or frequency.
b) Applying a pesticide against any target pest that is not specified on the label if the application is to the crop, animal, or site that is specified on the label.

c) Employing any method of application that is not prohibited by the label unless the label specifically states that the product may be applied only by the methods specified on the labeling.
d) Mixing a pesticide or pesticides with a fertilizer when the label does not prohibit such mixture.
e) Any use of a pesticide that is in compliance with section 5, 18, or 24 of the Federal Insecticide, Fungicide, and Rodenticide Act of 1947 [Pub. L. 104-170; Stat. 7 U.S.C. 136 et seq.]. [NDAC 60-03-01-02]

"Waters of the state" means all water included within the definitions given in subsection 6 of North Dakota Century Code section 61-28-02 or North Dakota Century Code section 61-01-01.

61-28-02. "Waters of the state" means all waters within the jurisdiction of this state, including all streams, lakes, ponds, impounding reservoirs, marshes, watercourses, waterways, and all other bodies or accumulations of water on or under the surface of the earth, natural or artificial, public or private, situated wholly or partly within or bordering upon the state, except those private waters that do not combine or effect a junction with natural surface or underground waters just defined.

61-01-01. Waters of the state - Public waters. All waters within the limits of the state from the following sources of water supply belong to the public and are subject to appropriation for beneficial use and the right to the use of these waters for such use must be acquired pursuant to chapter 61-04:
1. Waters on the surface of the earth, excluding diffused surface waters but including surface waters whether flowing in well-defined channels or flowing through lakes, ponds, or marshes which constitute integral parts of a stream system, or waters in lakes;
2. Waters under the surface of the earth whether such waters flow in defined subterranean channels or are diffused percolating underground water;
3. All residual waters resulting from beneficial use, and all waters artificially drained; and
4. All waters, excluding privately owned waters, in areas determined by the state engineer to be noncontributing drainage areas. A noncontributing drainage area is any area that does not contribute natural flowing surface water to a natural stream or watercourse at an average frequency more often than once in three years over the latest thirty-year period.

“Weed” means any plant which grows where not wanted. [NDCC 4-35-05]

“Wetlands” means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

“Water Quality Impaired” means ‘Impaired Water’.

“Water Quality Standards (WQS)” A water quality standard defines the water quality goals of a water body, or portion thereof, by designating the use or uses to be made of the water and by setting criteria necessary to protect the uses. Water quality standards also include an antidegradation policy and implementation procedures. North Dakota’s Water Quality Standards are contained in NDAC 33-16-02.1.

"You and Your" as used in this permit are intended to refer to the operator, or the discharger as the context indicates and that party's activities or responsibilities.

ABBREVIATIONS AND ACRONYMS

BMP – Best Management Practice
BPJ – Best Professional Judgment
CWA – Clean Water Act (or the Federal Water Pollution Control Act, 33 U.S.C. §1251 et seq)
EPA – U. S. Environmental Protection Agency
FIFRA – Federal Insecticide, Fungicide, and Rodenticide Act, 7 USC 136 et seq.
FWS – U. S. Fish and Wildlife Service
IPM – Integrated Pest Management
NDDA – North Dakota Department of Agriculture
NDDH – North Dakota Department of Health
NDPDES – North Dakota Pollutant Discharge Elimination System
NOI – Notice of Intent
NOT – Notice of Termination
NPDES – National Pollutant Discharge Elimination System
TMDL – Total Maximum Daily Load
WQS – Water Quality Standard

APPENDIX C – PEST MANAGEMENT MEASURES

The following describes Pest Management Measures for the pesticide use patterns described in the permit for pesticide discharges.

1. Identify the Problem.
   Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the state, and at least once each calendar year thereafter prior to the first pesticide application for that calendar year, do the following for each pest management area:

   For mosquito and other flying or aquatic nuisance insect control:
   - Establish densities for larval and adult mosquito or other flying or aquatic nuisance insect populations which serve as action threshold(s) for implementing pest management;
   - Identify target mosquito or aquatic nuisance insect species and develop a species-specific control strategy based on developmental and behavioral considerations;
   - Identify known breeding sites for source reduction, larval control program, and habitat management; and
   - Analyze existing surveillance data to identify new/unidentified sources of mosquito or aquatic nuisance insect production as well as sites that have recurring pest problems.

   For the application of pesticides for aquatic weed and algae control:
   - Identify areas with weed or algae problems and characterize the extent of the problem, including, for example, water use goals not attained (e.g. wildlife habitat, fisheries, vegetation, and recreation);
   - Identity target weed species;
   - Identify possible sources of the problem (e.g., nutrients, invasive species, etc); and
   - Establish past or present pest weed densities which serve as action threshold(s) for implementing pest management strategies.

   For discharges from the application of pesticides for aquatic nuisance animal control:
   - Identify areas with aquatic nuisance animal problems and characterize the extent of the problems, including water use goals not attained (e.g. wildlife habitat, fisheries, vegetation, and recreation);
   - Identify target aquatic nuisance animal species;
   - Identify possible sources of the problem (e.g., nutrients, invasive species); and
   - Establish past or present aquatic nuisance animal densities which serve as action threshold(s) for implementing pest management.

   For discharges from the application of pesticides for forest canopy pest control:
   - Establish target pest densities which serve as action threshold(s) for implementing pest management;
   - Identify target species to develop a species-specific control strategy based on developmental and behavioral considerations; and
   - Identify current distribution of the target pest and assess potential distribution in the absence of control measures.

In the event site data are not available within the past year, operators should document why site data are not available and the data used to make determinations.

2. Pest Management
   Prior to the first pesticide application covered under this permit that will result in a discharge to waters of the state, and at least once each year thereafter during which an operator will have a discharge, operators must select and implement control measures for each pest management area. These control measures must be efficient and effective means of pest management and must successfully minimize discharges resulting from the application of pesticides. The selection of control measures must consider the use of pesticide and non-pesticide methods. In developing your pest management strategies, operators must evaluate the following management tools while considering pest resistance, feasibility, cost effectiveness, and the impact to water quality and non-target organisms. The management tools are:
   - No action
   - Prevention of the situation requiring pest management
   - Mechanical/physical methods of pest management
   - Cultural methods of pest management
   - Biological control agents (e.g. predators)
   - Available pesticides appropriate for the target pest.

3. Pesticide Use
   If a pesticide is selected as a control measure and application of the pesticide will result in a discharge to waters of the state, operators must do the following for each pest management area, specific to the use pattern:

   For mosquito and other flying or aquatic nuisance insect control:
   - Conduct larval and/or adult surveillance prior to each application to assess the pest management area and to determine when the pest action thresholds are met which necessitate the need for pest management;
   - Assess environmental conditions prior to each application (e.g. temperature, precipitation, and wind speed in the treatment area) to identify conditions which support development of pest populations and are suitable for control activities;
   - Reduce the impact on the environment and non-target organisms by applying the pesticide only when the action thresholds have been met or disease is present;
   - In situations or locations where practicable and feasible, use larvicides as a preferred pesticide for mosquito or flying or aquatic nuisance insect pest control when larval action thresholds have been met; and
   - In situations or locations where larvicide use is not practicable or feasible, use adulticides for mosquito or flying or aquatic nuisance insect pest control when adult action thresholds have been met.

   For the application of pesticides for aquatic weed and algae control:
   - Conduct surveillance prior to each application to assess the pest management area and to determine when the pest action threshold is met that necessitates the need for pest management; and
   - Reduce the impact on the environment and non-target organisms by applying the pesticide only when the action threshold has been met.

For discharges from the application of pesticides for aquatic nuisance animal control:

- Conduct surveillance prior to each application to assess the pest management area and to determine when the pest action threshold is met which necessitates the need for pest management; and
- Reduce the impact on the environment and non-target organisms by considering site restrictions, application timing, and application method in addition to applying the pesticide only when the action threshold has been met.

For discharges from the application of pesticides for forest canopy pest control:

- Conduct surveillance prior to each application to assess the pest management area and to determine when the pest action threshold is met which necessitates the need for pest management;
- Assess environmental conditions (e.g. temperature, precipitation, and wind speed in the treatment area) to identify conditions which support target pest development and are suitable for treatment activities;
- Reduce the impact on the environment and non-target organisms by considering the restrictions, application timing, and application method;
- Use pesticides against the most susceptible developmental stage; and
- Use pesticides only where the action threshold has been met.

APPENDIX D – RESPONSE TO COMMENTS

Response to comments were received by the North Dakota Department of Health will be added here.